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Art. I.—NOTE ON A CASE OF EXPOSURE OF THE VENTRICLES OF THE LARYNX.

BY THE EDITOR.

Through the kindness of Dr. Ashmead, our colleague in the Philadelphia Hospital, we had an opportunity of examining a case in which the larynx had been freely opened, some time ago, with the object of committing suicide. Adhesion had taken place between the edges of the posterior part of the wound, but the aperture anteriorly was sufficient to allow the inferior ligaments to be distinctly seen. The original wound appeared to have passed immediately through the ventricles of the larynx; and in the process of cicatrisation, considerable deposition had taken place anteriorly, so that the ligaments of the glottis are not left free to vibrate.

The following observations were made at our visit, and were noted by Dr. Selden, one of the resident physicians of the institution. They were confirmed at a subsequent visit with Dr. Pennock and Dr. Lakey, of Cincinnati.

First, The arytenoid cartilages approach during expiration and separate on inspiration, when the breathing is quiet. When it is agitated, they approach and recede irregularly.

Secondly, During deglutition, whilst the larynx rises under the base of the tongue, the opening of the glottis—*rima glottidis*—is completely closed by the contraction of the intrinsic muscles of the larynx.

[It was manifest, that this action must totally prevent the entrance of substances into the trachea during deglutition.]

Thirdly, When odorous substances were held to the nose—the aperture of the throat being open—their smell was correctly appreciated; but by no means as distinctly as when the aperture was closed.

[Perrault, Lower, and Chaussier found, that by making an opening into the trachea of an animal, smell was not effected, and that dogs, which were the subject of the experiment, readily ate food they had previously refused.]

Fourthly, During the production of voice, whilst the aperture was left free, the voice was exceedingly raucous and indistinct. When the aperture was closed, it was still very raucous, but the words could be distinguished.

In the production of all vocal sounds, the glottis appeared to be almost entirely closed. When the aperture was free, the simple vowel sounds could not be distinguished from each other; but the letter I, which is a diphthong, could be discriminated from the rest.

[The great indistinctness of the sounds, when the aperture was open, appeared to be mainly owing to the tumefaction described above as existing anteriorly, and which acted, to a certain degree, as a damper to the vibrating cords. When the aperture was closed, and the air passed immediately upwards, greater freedom of vibration was permitted, and the different sounds were more appreciable.]

Owing to the tumefaction of the parts, no satisfactory observations could be made on the condition of the vocal cords in the production of grave and acute sounds.

Art. II.—REPORT ON BILLS OF MORTALITY.[1]

The proper mode of framing public registers of deaths was pretty fully considered by a committee of the British Association, which was appointed at the meeting held in this city, in 1834, and reported to the subsequent meeting of the Association in Dublin, in 1835. At that time, "the Act for Registering Births, Deaths, and Marriages in England," was only in contemplation, and it was expected that a similar Act for Scotland would be introduced into parliament. The English Bill became law in 1837, but the Scottish Bill, in consequence, as is said, of the opposition made to it by the parish-clerks throughout the country, has been hitherto postponed. It seems hardly possible, however, that the numerous benefits which our sister-country derives from an effective system of registration, should not, within a reasonable time, be extended to Scotland; and it may be hoped that the recent decided expression of opinion by the Statistical Section of the British Association, respecting the importance of the measure, will contribute to this end.

It is obviously of importance, therefore, that the attention of the profession in Scotland should be again directed to the subject of the registration of deaths, and to the advantages, as regards not only the interests of the public, but the progress of medical science, which may be expected to result from a well-regulated system of registration; and this more particularly, as the plan of keeping such resisters, introduced by the English Bill, (which is considerably different from that previously recommended by the Edinburgh committee,) and the statistical nosology recommended by the registrar-general, for the use of practitioners in filling up the returns of the causes of death, appear to your committee liable to serious objections.

With two observations, contained in the letter on Statistical Nosology, prefixed to the table of diseases drawn up by Mr. Farr, and both of which are contained in the Remarks on the Registration of Deaths, that were laid before the British Association by the sub-committee formed at Edinburgh in 1834, all must concur.

The *first* of these relates to the importance of retaining the old division of diseases into *plagues* and *sporadic diseases*, or in other words, into, 1*st*, those diseases which are confined to limited districts and limited periods—

[1] Report of a Committee of the Royal College of Physicians of Edinburgh, appointed to consider the best mode of framing Public Registers of Deaths. (Approved by the Royal College, February 17, 1841.)—Edinburgh Medical and Surgical Journal, July, 1841, p. 140.

which are either endemic or epidemic; and 2*d*, those which proceed from causes acting pretty uniformly on every large mass of mankind, and which are found accordingly, although influenced by climate and season, to prevail more or less, and to produce a larger or smaller annual mortality, in all countries.

This distinction at once recommends itself to the common sense of mankind, and perhaps the most correct scientific account we can give of it is by saying, that one class of diseases is the result of specific poisons, of various sorts, introduced into the animal economy, and the other of morbid actions, excited by causes which are very generally applied, and are not necessarily deleterious in their effects. But the allocation of individual diseases, in one or other of these great divisions, is attended with difficulty, and the plan adopted in the English table is in several respects unsatisfactory.

The *second* of the two observations referred to, is that, in sporadic diseases, it is generally easier to distinguish the region, or even the organ, primarily and chiefly affected, than to ascertain the precise nature of the disease. The importance of this observation appears to your committee not to have been sufficiently appreciated in forming the registration lists of diseases for England; and to suggest the only distinction that ought to be observed between a statistical nosology, and a nosology for the use of schools of medicine.

To these we would add only one other preliminary observation, which is the foundation of the criticism to be offered on the tables of the causes of death, drawn up by Mr. Farr, and used in the returns under the English Registration Bill, viz.—That in constructing such returns, it is better to *acknowledge ignorance*, than to run the risk of *proclaiming error*—better to rest satisfied with a smaller amount of information, of which we can be absolutely certain, than to attempt to procure a larger amount, at the risk of the facts being so much blended with opinions, as to make numerical statements a possible source of misapprehension and erroneous doctrine.

It is to be observed, that certain articles of information in regard to all the deaths that occur in a district, may be accurately and uniformly given in the registers, and be of much importance in various medical inquiries (because enabling us to construct tables illustrating with certainty the influence of various causes on health,) altogether independently of any medical opinions as to the causes of death; viz. the age, the sex, the precise date of death, the occupation of the deceased person, or that of the head of the family to which he belonged, the precise locality of his residence, the part of the body chiefly affected by the fatal disease, and, in a general way, the duration of his disease. The report of the Edinburgh sub-committee laid some stress on the importance of all registers containing details on the two last of these heads; and suggested, that all the deaths should be ranked as depending on acute or chronic diseases, according as the patient should have been known to be ill, and disabled for his ordinary occupations for less or more than *six weeks* before death. We regret to perceive no evidence that effectual provision is made in the registers kept under the act now in force in England for any of the last mentioned points being uniformly and regularly ascertained.

In proceeding farther, it must always be kept in mind, *first*, That to a very large proportion of the deaths registered, no report of the cause of death, by a medical man, will be annexed; and, *secondly*, That such a report, when given, unless much care be taken, may very often be founded in a great measure on opinion, not on ascertained facts. But, conformably with the principles above laid down, it is desirable that all the cases of sporadic diseases should be entered according to the seat of what was regarded as the chief affection—as acute or chronic disease of the *head*, of the *chest*, of the *stomach* or *bowels*, (including affections of the liver and other chylopoietic viscera,) of the *urinary organs*, of the *genital organs*, of the *bones* or *joints*, or of *external parts*. This may be done, as was observed by the

committee of the Association, without any report by a medical man; but it will of course be done with more accuracy by medical practitioners. Farther, it would be desirable that the accurate specification of the organ, or the more precise name of the disease, should be given *only when furnished by a medical practitioner*, and should be stated in a separate column; and that practitioners should be requested to specify the name only in those cases in which they can announce it with confidence and precision. Thus we might have, *e. g.* one hundred cases of death reported as resulting from diseases of the chest, forty of these marked as acute cases, and of these forty, perhaps only ten would be named; but the names given, being in conformity to instructions, as simple as possible, issued to all medical men, and to none others, would be understood alike by all, and therefore be deserving of confidence.

Thus we should have in every register of deaths, two distinct columns—the one to be filled up in all cases, the other only in some cases, from which, of course, two lists may be at any time made up, the first illustrating many important points relative to disease, although containing no nosological name; the second affording as good security as the state of medical science and medical instruction permits, that the names of diseases given in it are given uniformly, and applied similarly in all parts of the country. Each of these columns would be subdivided in the way to be afterwards mentioned.

The construction of the list of diseases, to be recommended by authority to all practitioners, is the subject of greatest difficulty connected with the registration of deaths, and that in which the plan adopted in England seems liable to the greatest objection. But we regard it as a fundamental principle, that practitioners should be strongly advised rather to content themselves with stating the seat of the disease causing death, and its course as acute or chronic, than to affix a name to it, without possessing certain evidence, from examination of the body or other unequivocal indications, of the name they affix being the right one.

The importance of this caution appears from the tables published in England. We do not refer to the whole list of diseases, about 180 in number, given under the name of Statistical Nosology, which seems very deficient in simplicity, (comprising, for example, six distinct names for varieties of the continued fever of this country,) but would refer particularly to the abstract of the causes of death in the registers contained in page 120 of the first report. The names there given are certainly a great improvement on the ancient bills of mortality; but we think it easy to show that the objections justly urged by Mr. Farr against the old nomenclature, that "each disease has been denoted by different terms, and each term applied to different diseases—that vague, inconvenient names have been employed, and complications been registered instead of primary diseases"—have been by no means uniformly avoided.

The first objection which occurs to us to this "abstract of the causes of death," is, that cholera, (distinguished from the Asiatic or malignant cholera,) croup, diarrhœa, thrush, dysentery, and erysipelas, are all set down among the plagues, *i. e.* the epidemic, endemic, and contagious diseases. We submit that the three first of these should be excluded from this head of diseases altogether; and this more especially as, besides 1655 cases of croup, ranked among the epidemics, we have, under the head of sporadic diseases, in the same table, 24 from laryngitis and 289 from quinsy. We apprehend that it would be much simpler, and more scientific, to have all these ranked together, in the first instance, as acute diseases of the windpipe, and very much doubt if any advantage is to be derived from more minute distinctions among them.

Again, we have, among the epidemic diseases, 460 deaths from cholera, 2755 from diarrhœa, and 675 from dysentery; and then we have, among the sporadic diseases, 170 from ulceration of the bowels, 3396 from gastro enteritis, and 853 from disease of the bowels, besides 437 from tabes mesenterica,

and 1963 from teething. We think it obvious here, that different names, and even different places in the system, must have been repeatedly given to the same diseases; and that all scientific purposes would have been better served, and with less chance of any erroneous inference, if the whole of these had been classed together as sporadic diseases of the intestines, acute or chronic, according to their duration; and if more specific names had been given only to a small proportion of them, under the caution already stated, that such names should be given only in those cases where practitioners are certain of their being rightly applied.

In regard to aphthæ, dysentery, and erysipelas, we consider these diseases as being, in the greater number of instances which occur in this country, distinctly sporadic; and although we agree to the propriety of ranking some cases of each of these diseases among epidemic or contagious diseases, yet we think this should only be done, and that practitioners should be warned only to do it, when successions of cases have occurred within such narrow limits, both of space and time, as clearly to indicate the operation of some local and temporary cause; and in this case the term epidemic should be prefixed to the name of the disease. With this caution, we cannot doubt that the epidemic peritonitis, or puerperal fever, must likewise be occasionally added to this class of diseases.

Another important observation with regard to epidemic diseases is, that practitioners should be warned not to apply the terms fever or typhus, without prefixing, and being satisfied of the right application of, the term contagious or epidemic; because it is certain that at present the name fever is given to many febrile diseases, particularly of children, which are quite distinct from the continued fever, justly ranked as the most important of the epidemic diseases of this country.

Thus the first class of diseases—the epidemic, endemic, and contagious—will be reduced, except on occasion of uncommon epidemics, to the following, which all admit to be strictly of this character—epidemic, influenza, small-pox, measles, scarlatina, hooping-cough, epidemic continued fever, intermittent fever, syphilis, and hydrophobia.

The first group of sporadic diseases in the English register consists of those of the nervous system, and the number of deaths in six months, referred to this head, is 21,873, of which only 764 are marked simply as disease of the nervous system; all the rest have names assigned to them, and no fewer than 10,729 are named convulsion, besides which there is a separate head of epilepsy, comprising 570, and 4591 are recorded as cephalitis and hydrocephalus. It is obvious here, as, indeed, Mr. Farr has stated, that cases of various "undeveloped diseases, and the *results* of different diseases," many of these truly of the epidemic class, have been ranked as convulsions. If it were an instruction to medical men to avoid entering simply as convulsions, those cases which occur as a symptom or sequela of other diseases, this fallacious item in this great family of diseases would be rapidly diminished.

Instead of making separate heads of cephalitis and hydrocephalus, (the distinction between which will certainly not be understood alike by all practitioners,) we would greatly prefer using the general term inflammation of the brain or its membranes; observing, of course, the usual division of cases into acute and chronic, and making a separate entry of those cases which practitioners can accurately distinguish (by dissection)—as inflammation of the membranes, inflammatory softening of the brain, or acute hydrocephalus; to which should be added a record of those cases, whether acute or chronic, which can be distinguished as of a scrofulous or strumous character—of which, of course, the best characteristic is the existence (ascertained in like manner) of tubercular deposits.

In regard to apoplexy and palsy, it is obvious that, in a pathological view, the distinction of these from one another, is not nearly so important as the distinction of either the one or the other, according as it has been produced

by inflammation, or by rupture of a vessel, or by organic disease, or independently of any of these. These distinctions may easily be marked by practitioners, and the record of them will be useful, provided only that they have been ascertained beyond doubt by the appearances after death.

Thus the general distinction, and the only one uniformly observed under this head, will be into acute and chronic diseases of the brain, spinal cord, and nerves; and under each head we shall have a certain number of cases accurately distinguished—as inflammation, simple or scrofulous, apoplexy or palsy from inflammation or softening, from effused blood, from organic disease, or without obvious cause. Among the acute diseases we shall have idiopathic convulsions; among the chronic, habitual epilepsy, a certain number of cases of which, dependent on organic disease, will also be marked. The remaining diseases of this class contained in the abstract, and to be distinguished by practitioners, tetanus, chorea, insanity, and delirium tremens, demand no comment.

The diseases of the heart and lungs are so often combined, and it is often so difficult even for a medical man to point out the part primarily and chiefly diseased, that we are convinced the attempt to separate them in all cases, in statistical tables, can lead to no result on which reliance can be placed. We would therefore recommend that there should be no other general distinction of these diseases, than that into acute and chronic diseases of the chest, and the names of pectoral diseases, which seem proper for the guidance of practitioners in the more accurate specification, under those two general heads, are the following:—

Inflammation of the Larynx or Trachea.
Bronchitis.
Bronchitis with Asthma.
Pneumonia.
Pleurisy with large fluid effusion, (*i. e.* Empyema.)
Consumption of the Lungs, (Tubercular.)
Other organic disease of the Lungs.
Organic disease of the Lungs with Dropsy.
Inflammation of the Heart.
Organic disease of the Heart.
Organic disease of the Heart with Dropsy.
Thoracic Aneurism.

The greatest difficulty respecting these diseases is, how to place those cases to which practitioners will be apt to give the vague names of asthma and hydrothorax. The former is probably always an attendant, although in certain constitutions only, on bronchitis, and seems to be almost always the cause of emphysema of the lungs; and even when this last affection has become complicated, as in the natural course of things is very often the case, with hypertrophy of the right side of the heart, enlarged liver, and dropsy, still the part *primarily* affected may be said to be the bronchia. But the best mode of registering such complex cases will be considered presently.

It is obvious that dropsies ought to be distinguished by the seat of the disease producing them, not by their own seat; and therefore that the proper distinction of cases terminating in this way is into dropsy from diseased lungs, from diseased heart, from diseased liver, from diseased kidney, and from diseased ovary, perhaps we might add, from diseased pleura, and from diseased peritoneum. It is certain, that, in a majority of dropsical cases, organic disease of more than one internal part exists, and is concerned in producing the effusion; still we are anxious to point out the importance of observing, as carefully as possible, the organ primarily and chiefly diseased, (*e. g.* whether it is the heart or the lungs that has first and chiefly suffered,) before registering the disease.

The list of diseases of the intestinal canal, and the numbers reported of

deaths, as produced by them during the first six months of registration in England, are as follow:—

Teething,	1903
Gastro-Enteritis,	3396
Peritonitis,	82
Tabes Mesenterica,	487
Ascites,	51
Ulceration,	170
Hernia,	252
Colic,	58
Constipation,	461
Worms,	264
Disease of Intestines,	853

in addition to above 3800 deaths by diarrhœa, dysentery, and cholera, placed among the plagues.

With regard to this table, we do not think it is going too far to observe, that it would have answered all scientific purposes much better, to have classed the whole of the cases referred to, with the ages of the patients, simply as acute or chronic diseases of the stomach and bowels; all the attempts made in it to give them more specific names, being at least as much calculated to mislead as to instruct. Thus, the two first and largest items in the enumeration ought to be struck out altogether, for teething, although often a cause of fatal disease, is not properly styled a cause of death;[1] and what is properly meant by gastro-enteritis, as distinguished on the one hand from continued fever, and on the other from peritonitis, diarrhœa, dysentery, and ulceration of the bowels, we must profess ourselves quite unable to understand.

It would, it is conceived, be much better, ranking all these cases under the general heads of acute and chronic diseases of the alimentary canal, to direct the attention of practitioners to the following more particular names, to be given only to those cases to which they are sure of their being truly applicable:—

Peritonitis.
Inflammation of Mucous Membrane of Intestines, (with its Sequelæ.)
Dysentery.
Idiopathic Diarrhœa.
Cholera.
Scrofulous or Tubercular Diseases of the Intestines or Glands.
Other Organic Disease of the Stomach or Intestines.
Do. with Dropsy.
Hernia.
Obstruction of Bowels, (*i. e.* without Inflammation or Organic Disease.)

In regard to the list of diseases of the liver, under the distinction of acute and chronic, there should be a distinct head of inflammation, (and its sequelæ,) one of granular disease, (or cirrhosis,) one of other organic disease, and one of jaundice without organic disease. We would register dropsy along with the different heads of chronic disease of the liver, when it is present, but would annex a caution that, when organic disease of the liver is found in connection with organic disease of the heart or lungs, it should not in general be regarded as the primary or most essential disease. Thus, many of the cases in which dropsy is combined with liver disease, would be referred to the original and fundamental change of structure within the chest, on which both are in fact dependent.

[1] The same observation applies to worms.

We regard Mr. Farr's abstract as an improvement on the general table recommended by the sub-committee of the British Association, in so far as it makes separate heads of diseases of the urinary organs, and of the organs of reproduction, distinct from those of the abdominal viscera, because most of the diseases of these two sets of organs may be referred to their place in nosology, even by those who have had no medical instruction.

But there is considerable difficulty as to the arrangement of those numerous cases of dropsy which are now known to depend in part, and often most essentially, on granular disease of the kidneys. That the importance of this disease is altogether overlooked in the returns made in England, and, indeed, that the classification of dropsical diseases is quite unsatisfactory, appears from this, that while 995 deaths (occurring in the last six months of 1837) are ascribed to hydrothorax, and only 51 to ascites, we have 5584 ascribed to dropsy of uncertain seat, and only three to granular disease of the kidneys; but how this confusion and ambiguity are to be corrected, is a more difficult question. We would suggest that practitioners should be advised to set down, as cases of granular disease of the kidneys, all cases in which the urine is permanently of low specific gravity, and coagulable by heat and acids; and then, that cases of this description, as attended by dropsy, by coma, or by diarrhœa, which seem to be the most usual modes of fatal termination of this disease, should be farther distinguished. There will, of course, be a number of cases of dropsy dependent on granular kidney, which will not be included under this head, their nature not having been determined by practitioners. These will appear as dropsies of uncertain seat, or as diseases of the head or of the bowels; but as this disease of the kidneys does not make itself known by any symptoms manifestly referable to the urinary organs, it seems impossible to have a record of its frequency extending even to all the cases which are reported by practitioners.

We think there can be no doubt as to the propriety of removing diabetes from this head of the nosology, and classing it among diseases of uncertain seat; and likewise, that the general term ischuria, should not appear in the list of diseases reported by medical men, but that cases of that kind should be reported as diseases either of the kidneys, bladder, prostate gland, or urethra.

In regard to the diseases of the organs of reproduction, included in Mr. Farr's list, we have only to observe, that the fact of the deaths of females from diseases of this class, independently of parturition, being only 150 in 148,700 deaths, is sufficient evidence that many of the deaths which should have been ranked here, if they had been correctly understood, have been ascribed to other causes.

We think the classes of diseases of the organs of locomotion, and of the integumentary system, may be most simply designated as diseases of the bones and joints, and of external parts, and that several of the diseases stated as of uncertain seat, should be ranked here. It seems quite incorrect to enumerate, as of this last class, cases of inflammation, of hemorrhage, of abscess, of mortification, of scrofula, carcinoma, or tumour; the seat of every case of which must be known, if the disease is truly recognised.

After the head of abscess, that of ulcer, and that of diseases of the joints, there should be another head entitled scrofulous do., and by means of this and of the names already suggested, scrofulous diseases of the brain, lungs, and abdominal viscera, we shall have a fair view of the extent of the mortality from scrofulous diseases, as compared with that portion of the whole mortality on which there are accurate reports.

Perhaps the only diseases which ought to be ranked as of uncertain seat, should be gout—dropsy, when the cause is obscure—diabetes, scurvy, purpura, and debility from unknown cause.

Thus, the list of sporadic diseases, according to which we should wish those cases, to which any specific names are given, to be arranged, would stand thus:—

Inflammation (acute or chronic) of the Brain.
Do. with Scrofula.
Do. of Spinal Cord.
Apoplexy or Palsy (acute or chronic) from effused blood.
Do. from Inflammation or Softening.
Do. from Organic Disease.
Simple Apoplexy.
Idiopathic Convulsions.
Epilepsy.
Chorea.
Tetanus.
Insanity.
Delirium Tremens.
Neuralgia.
Inflammation (acute or chronic) of Larynx or Trachea.
Do. of Mouth, Tongue, or Fauces.
Acute Gangrene of Do.
Cancer of Do.
Bronchitis.
Bronchitis with Asthma.
Pneumonia.
Pleurisy with large fluid effusion, (or Empyema.)
Consumption of the Lungs, (tubercular.)
Organic Disease of the Lungs, (not tubercular.)
Do. with Dropsy.
Inflammation of Heart.
Do. from Rheumatism.
Organic Disease of Heart or great vessels.
Do. with Dropsy.
Peritonitis.
Inflammation of Mucous Membrane of Bowels.
Dysentery.
Diarrhœa, (Idiopathic.)
Cholera.
Obstruction of Bowels.
Tubercular Disease of Intestines or Glands.
Organic Disease (not tubercular) of Stomach or Intestines.
Do. with Dropsy.
Hernia.
Inflammation of Liver.
Granular disease of Liver, (or Cirrhosis.)
Do. with Dropsy.
Other organic disease of Liver.
Do. with Dropsy.
Jaundice (without organic disease.)
Organic disease of Pancreas or Spleen.
Inflammation of Kidneys.
Granular disease of Kidneys, with Dropsy.
Do. with Coma.
Do. with Diarrhœa.
Urinary Calculus.
Ischuria Renalis.
Inflammation of the Bladder.
Organic disease of Bladder.
Do. of Prostate Gland.
Do. of Urethra.
Do. of Testis.
Inflammation of Uterus.
Cancer of Uterus.

Other organic disease of Uterus.
Do of Ovary.
Cancer of external parts.
Inflammation (acute or chronic) of the surface of the Body, (including Abscess, Ulcers, Erysipelas, Carbuncle, Chronic Cutaneous diseases.)
Do. with Scrofula.
Inflammation of Joints or Bones.
Scrofulous disease of Joints or Bones.
Other organic disease of do.
Gout.
Dropsy from uncertain cause.
Diabetes.
Hemorrhage from uncertain cause, (seat to be stated.)
Scurvy.
Purpura.
Debility (including deaths from old age.)

But when we consider the very large proportion of fatal cases in which a complication of diseases exists, and the importance of recording as much as possible of the causes tending to the fatal event, we are decidedly of opinion that it is impossible to obtain the whole pathological information which such registers, in so far as they are filled up by practitioners, ought to convey, without a subdivision of the column assigned for the name of disease into two compartments, the one stating the "disease causing death," the other the "previously existing disease, if any," It is true, that different practitioners may arrange the information conveyed in those two columns differently; but as both columns will always be examined by any one wishing to obtain statistical information from them, this is of little importance.

The advantages of the plan which we propose for the keeping of these registers, will be best shown by the following schedule and examples:—

Date.	Name.	Sex.	Age.	Marr'd or Single.	Exact Residence.	Employment, or that of Head of Family.	Duration and Seat of Disease. Acute.	Chronic.	Name of Disease Causing Death.*	Previously existing, if any.
May 10	J. More	M.	27	S.	12 Potterrow	Tailor	Bowels	—	Dysentery	—
11	A. Jones	F.	40	M.	159 Cowgate	Husband, Blacksmith	—	Chest	Consumption	—
15	J. Brown	M.	50	M.	220 High St.	Labourer	Chest	—	Pleurisy	Epidem. Fever
16	M. White	F.	5	S.	30 George St.	Father, Shopkeeper	Head & Chest	—	Convulsion	Hoop. Cough
17	J. Smith	F.	60	M.	3 Rose St.	Shopkeeper	—	Chest	Dropsy	Org. Dis. of Ht. & Liv.
18	W. Reid	M.	43	M.	80 Grassmarket	Porter	Bowels	—	—	—
19	M. Forbes	F.	50	S.	20 Canongate	Washerwoman	—	Bowels	Diarrhœa	Gran. dis. of Kid.
20	J. Tod	M.	4	S.	30 High St.	Father, Writer	Head	—	Inflam. of Brain (Scrofs.)	—
21	M. Hay	F.	3	S.	2 Rose St.	Father, Servant	—	Chest	—	—
22	J. Bell	M.	65	M.	2 George St.	Servant	Head	—	—	—

* The columns containing names of diseases, only to be filled up by medical practitioners, except in cases of death from notoriously epidemic diseases, such as smallpox or hooping-cough.

The only other observation which occurs to us on this subject is, that the tables of mortality abstracted from the register may easily be made to exhibit the differences of health of towns and districts of the country, more satisfactorily than those published in England. The importance of the data thus afforded, is very well stated by Mr. Lister, in his first report, as follows:—

"I have felt that it was of great importance, not only to give an abstract for the whole kingdom of England and Wales, but to exhibit the difference that prevails in different portions of the kingdom, to compare town with country, agricultural districts with manufacturing and mining districts, the hilly with the low and level, the maritime with the inland, the eastern and northern with the western and southern parts. Nor are these diversities matters of merely curious speculation, but may be made the source of important benefits, especially to the poorer classes. It was stated in evidence before the committee on parochial registration, in 1833, by the actuary of the National Debt Office, that the extent of difference which then existed was utterly unknown; that tables for the use of the poor, in reference to sickness and mortality, and in reference to the regulation of their friendly societies, could not then be constructed for two districts differing in character, from the want of such information as an improved system would afford; and that if two societies of poor men, residing in districts of a totally different character, were, at the same time, to apply to him for tables to guide them in preserving their societies solvent, he 'should be under the necessity of giving the same tables to both, though knowing perfectly that the rates which were adequate in one case, were inadequate in the other.' It was also stated to the committee on laws respecting friendly societies, by another eminent actuary (Mr. Milne), that no one table or scale of contributions can, with propriety, be adopted by all friendly societies; that one composed of members living in or near a manufacturing town, required a table very different from that which would be required in places where the population is less dense, and where a considerable proportion of the members are chiefly employed in the open air; but that these are differences which he could not 'pretend to estimate for want of *data*.' The useful principle of comparison may, if requisite, be carried out into a more minute system of subdivision than I have, in this first instance, deemed it necessary to adopt. But there was danger lest, in attempting a more subtle discrimination, we should lose sight of broad distinctions which it was important to observe; and it was necessary to remember, that to diminish by subdivision the number of facts on which calculation could be brought to bear, was materially to diminish their value. The extent to which division should be carried, is a question not to be decided by any established rule, and which necesarily admits of much diversity of opinion; and I have endeavoured (not unaided by judgments which I respect) to pursue a middle course between the opposite extremes of subdivision and condensation, dividing the kingdom into the twenty-five portions in which are exhibited abstracts of deaths at different ages."

According to the division thus adopted by Mr. Lister, the five largest towns in England, London, Manchester, Liverpool, Leeds, and Birmingham, are separated from the adjoining districts of country, and the mortality in each exhibited separately; but all the second-rate towns in England are united with the surrounding districts of country, and constitute but a small part of the population of the districts (containing from 200,000 to above 1,000,000 inhabitants) of which the mortality is given.

The deficiency of the information given by these tables, appears distinctly from attempting to compare the mortality in Edinburgh with that in any of the English towns. All the towns of which tables are given, separately from country districts, are commercial and manufacturing towns, and, therefore, not proper objects of comparison with Edinburgh. The English towns which resemble Edinburgh most, in the condition and occupations of

their inhabitants, are Bath, Oxford, Cambridge, and some of the Cathedral towns; but we have no record of the mortality of any of these, disjoined from large districts of surrounding country.

In Scotland there are only seventeen towns, of which the population exceeds 10,000; and in order to have a fair exposition of the effects of town life, and of the mode of life in different towns, as compared with country districts, it would be of great importance that the mortality in all these should be stated separately from any country districts.

If these observations on the best plan for keeping public registers of deaths shall be approved by the Royal College, we would suggest that they should be made known, along with the earnest recommendation of the general principle of the measure by the Royal College, in whatever quarters may be thought advisable, in the view of aiding the object of obtaining a Registration Act for Scotland.

W. P. ALISON,
Convener of Committee.

Art. III.—CASE OF SUBACUTE BRONCHITIS, WITH PLASTIC TUBULAR SECRETION.

BY W. F. RANKING, M. D. CANT.,[1]
Physician to the Suffolk General Hospital.
Bury St. Edmunds, August 12, 1841.

I was summoned on the morning of the 2d of June last to meet Mr. Robinson, of Mildenhall, in consultation upon the following case:—

The patient, a gentleman, ætat. 20 years, of a nervo-sanguineous temperament, was seized on awaking by a paroxysm of coughing, accompanied by expectoration of sputa, tinged with blood. He had suffered three separate attacks, previous to the present one, of what was considered to be pure hæmoptysis, and dreaded accordingly as the forerunner of phthisis. He appears to have been for some time subjected to dyspnœa and palpitation upon exertion; and catarrhal attacks, to use his own expression, always "settled upon the lungs."

The first seizure of his present ailment occurred in January last, a second occurred in February, and a third in April, all of which yielded to topical bleeding and digitalis. The present attack came on rather unexpectedly; our patient having been noticed the day before to be in excellent health. The expectoration consisted of masses, which, upon casual observation, appeared to be mucus, tinged with blood, and was expelled by an effort more resembling "*hawking*" than cough. Upon more minute inspection, these sputa were seen to consist of a whitish membrane, distinctly tubular, and accurately moulded to the form of the bronchial tubes, even to their most minute ramifications. The consistence of these varied; in some portions the membrane was tough and opaque; in others thin, and raised into minute pouches by bubbles of air. The blood was small in quantity, and could be easily removed from these tubes by agitation in water.

There was little disturbance in the system beyond that produced by mental agitation; the appearance of the blood having given rise to the greatest anxiety both to the patient and his friends. The pulse was 80, and soft; the skin cool, and tongue natural; and there was little or no pain in the chest. I made a very careful stethoscopic examination relative to the existence of the tubercular deposit, but could not discover any grounds of apprehension. The chest was of an unusually round figure, and gave a clear

[1] London Medical Gazette, August, 1841, p. 832.

sound on percussion throughout. The respiratory murmur was of an intensity almost puerile, and audible every where, with the exception of the neighbourhood of the larger tubes, where it was marked by a sibilous râle. There was considerable præcordial dulness, and extensive but not forcible impulse. There was less difference than natural in the "*timbre*" of the first and second sounds. "The diagnosis I formed from these was, subacute inflammation of the bronchial mucous membrane, with plastic secretion; many tubes obstructed partially by membranous deposit; and a dilated heart of less than average power."

Under the impression that digitalis, which had been prescribed on former occasions, was not suitable to the state of the heart, I gave him internally the acetate of lead—a remedy which has been found so useful in bronchitis, by Henderson, guarded in the usual manner by acetic acid draughts: aperient medicine had been exhibited before my visit. Externally to the chest I applied the unguent. acet. potass. tart. The acetate of lead was suspended after forty-eight hours, and eight-grain doses of alum were substituted.

Under this treatment considerable amendment was perceptible on the third day, and by the end of the third week every unpleasant symptom had vanished.

The patient now remains in average health, and improves daily under a more generous diet than he had been allowed by his former medical attendant, and the daily use of tepid salt-water sponging, followed by friction with horse-hair gloves. Upon every tendency to catarrh, he applies the linimentum terebinthinæ to the chest.

The secretion of a membranous substance by the pulmonary mucous membrane is familiar to every one, as it occurs in croup; in fatal cases of which disease the bronchial tubes are often found to be filled with the same plastic material as is furnished by the lining membrane of the trachea. But the production of membranous secretion in the lungs of the adult, and unconnected with tracheal disease, must be considered as a rare event.

We have, however, several instances on record, by Barthollini, Ruysch, Tulpius, and Morgagni, under the names of bronchial polypus and bronchial worms.

Hippocrates,[1] also, probably witnessed something of the kind in the case of Phericides, whom he describes as spitting up "γαλακτώδεα," "white milky substances."

Dr. Bergen, of Frankfort on the Maine, has left us a description of an epidemic catarrh, accompanied by the expectoration of membranous tubes, which occurred in 1759. "Hanc tristem experientiam in propriâ filiâ feci, in quâ hoc singulare simul se obtulit phænomenon, quod ante mortem, tussi et screatu rejecerit tubulum membranaceum. Hunc tubulum judico esse portionem membranæ tubulosæ per ramos bronchiorum, durante morbo, generatæ."

Another case is related by Dr. Warren,[2] who is generally thought to be the first person who has given an accurate description of the disease. It will be seen, however, that he did not entertain any more concise ideas concerning it than Berger, who preceded him by many years. The case is as follows:—

A girl, æt. eight years, of strumous habits, was suddenly seized with dyspnœa and cough, which yielded to medical treatment. At the end of six weeks she had a second attack, accompanied by night sweats; the symptoms ceased upon the expectoration of what Dr. Warren calls "a large polypous concretion." The girl suffered several relapses, but was at length freed from them entirely by the formation of an abscess, connected with caries of the os calcis.

Baillie had never met with a case of what he calls "*bronchial polypus*," but had seen preparations of it.

[1] De Morbis Popular, lib. vii. ss. xli.

[2] Med. Trans. vol. i. art. 16.

Cheyne describes two forms of "bronchial polypus;" one of which is evidently nothing more than the fibrinous portion of blood effused into the bronchial tubes. The instance given by Laennec, as occurring in the progress of a case of phthisis, was of the same nature.

Dr. Casper[1] has published the case of a girl, æt. twelve years, also of strumous constitution, who, in the course of inflammatory catarrh, coughed up "a whitish yellow polypous body, of a tenacious character, and corresponding to the bronchial ramifications."

A case will be found in the Med. Repository, vol. xviii, by Mr. Iliff, and also in a memoir read before the Royal Academy of Medicine, on obliteration of the bronchial tubes, by M. Reynaud.

The last case I shall mention, is one published by Dr. Starr,[2] of Daventry, under the denomination of "chronic croup," and which exactly resembles the case of my patient. A girl, ætat. 22 years, complained of pain in the chest, with a sense of general oppression. Membranous tubes accurately moulded to the bronchial tubes, and, as in my case, tinged with blood, were expectorated. The blood was doubtless effused from small vessels, ruptured in the exertion necessary to dislodge the tenacious sputa. Authors are far from agreeing as to the precise pathological condition of the bronchial mucous membrane which gives rise to the plastic secretion. There are two principal and opposite opinions; one, which attributes the production of membrane, instead of the ordinary more fluid secretions of inflamed mucous tissue, to the existence of a high degree of irritation; another, which ascribes the phenomenon to an excess of the albuminous constituent of the blood. The generality of writers are in favour of the first opinion; the latter is embraced, among others, by Copland.[3] The question is discussed at some length by Andral,[4] by whom it is decided that a high degree of irritation is not sufficient *per se* to cause the secretion of plastic membrane; but that there must be, in addition, some special conditions of innervation or sanguification.

It appears to me that neither of these opinions is the correct one, and that the true explanation is still to be sought for. If the more frequent formation of plastic membrane in children than in adults be due to the existence of a larger quantity of albumen in the blood of the former, then ought we to see such productions the common consequence, in them, of inflammations of the mucous tissues. Such, however, is not the fact. One half, at the least, of the diseases of infancy and childhood, consist of irritations, of greater or less intensity, of the pulmonary and gastro-intestinal mucous membranes. Yet in cases only of croup and diphtherite do we see the production of plastic membranes—cases which, numerically considered, are rare.

The same objections hold good against the opinion which refers this peculiar secretion to the intensity of the vascular excitement. If the degree of irritation were the true cause of such secretion, we ought to see it more frequently among the numerous cases of bronchitis and gastro-enteritis which present themselves to our notice. In our patient, as well as in that of Dr. Starr, every symptom opposed the idea of high vascular excitement; yet was the formation of the membrane of the most perfect kind.

It is, however, in this as well as in many other points connected with our difficult science, far more easy to find objections to any particular opinion, than to frame a better; nor in the present instance do I pretend to do so.

The treatment pursued, was directed by the two following indications:—1st, To allay the existing irritation; 2d, To prevent its recurrence. The first end was accomplished by counter-irritation, and the internal use of the acetate of lead and alum, the sedative and astringent properties of which

[1] Wochenschrift für die Gesammte Heilkunde.
[2] Medical Gazette, Feb. 7, 1840.
[3] Vide art. Croup, Copland's Dictionary.
[4] Anatomie Pathologique, p. 484.

restored the bronchial capillaries to their normal condition. The second I hope to accomplish by judicious regimen, by sponging and friction of the chest, combined with the constant use of flannel, and by having recourse to cuticular irritation upon the slightest occurrence of catarrhal symptoms.

BIBLIOGRAPHICAL NOTICES.

Allen's Essay on the Connection of Mental Philosophy with Medicine.[1]

The subject, chosen by Dr. Allen for his inaugural essay, is excellent. It cannot be too strongly pressed upon the attention of the student who is desirous of excelling in his profession—that success, satisfactory to himself, can only be attained by a rigid study of the connection between cause and effect; and on this account we have been in the habit of recommending to the tyro, as well as to the farther advanced student, the perusal and reperusal of Abercrombie's interesting work on the Intellectual Powers, and the adoption of the excellent precepts inculcated by him.

Dr. Allen's design, in the Essay before us, appears to be twofold: *first*, to show the importance of the connection between mental philosophy and medicine; and *secondly*, to bring prominently forward the subject of which he has been, for some time, the able advocate in the pages of the Phrenological Journal.

On the importance of the connection of this subject with medicine, he and ourselves may entertain very different opinions; but we doubt not, that when a few years have passed over our heads, our sentiments will not be so widely apart. Be this, however, as it may, we can commend Dr. Allen's Essay for its style; and likewise for its freedom from that morbid excitement, which appears to exist in the writings of many amiable persons, when they touch upon a subject that is even remotely controversial.

Graves's Clinical Lectures.[2]

It has been not a little gratifying to us to find, that some of the works originally published in this Library have been considered to warrant a second edition, and that one of them has reached a third. The volume before us is not one of the least worthy of those; and its value has been enhanced by the additional lectures added by Dr. Gerhard. They are the republication of "a few of the Clinical Lectures given by him at the Philadelphia Medical Institute and at the Philadelphia Hospital, as a part of the Clinical Course of the University of Pennsylvania." The main subjects of these additional lectures are—Acute articular rheumatism, Pleurisy, Tubercular peritonitis,

[1] An Essay on the Connection of Mental Philosophy with Medicine. By Nathan Allen, A. M., M. D., Editor of the American Phrenological Journal and Miscellany.

[2] Clinical Lectures by Robert J. Graves, M. D., M. R. I. A., Professor of the Institutes of Medicine in the School of Physic, Trinity College, Dublin, &c. Second American edition, with Notes and a Series of Lectures. By W. W. Gerhard, M. D., Lecturer on Clinical Medicine to the University of Pennsylvania, &c. &c.

Pericarditis, Endocarditis, Tubercular meningitis, Chronic meningitis, apoplexy, Paralysis of the insane, Delirium tremens, Dysentery, Phthisis pulmonalis, Pneumonia, Laryngitis, Typhus and Typhoid fever—all subjects of great interest.

Hamilton's Table of Chemical Tests.[1]

We commend this table to our readers. It is prepared by a gentleman devoted to his subject, and amply informed on its details.

"In this arrangement, the chemical agents (alphabetically arranged) have their tests on the next column, in alphabetical order and without reference to their delicacy, followed in the next column by the colour of the precipitate and delicacy of test; in the fourth, by the composition and nature of the precipitate; in the fifth, containing the author; and in the last, the remarks necessary in their employment. The whole arranged for the use of the physician, chemist, or apothecary, in a simple form, and embracing every information that the present advanced state of the science furnishes to the chemist."

MISCELLANEOUS NOTICE.

On the frequency of the Pulse in Infants.[2]—In a recent work by M. Jacquemier, it is stated that the minimum of frequency in the pulse of new-born infants is about 97, and the maximum about 156. Haller fixed it at 140, and Soemmering at 130. Every physician is well aware how easily the pulse of infants is rapidly quickened by restlessness, crying, &c., and that the only accurate way to determine it is to feel it during sleep. In the act of sucking, the breathing is hurried, and the circulation is therefore necessarily quickened at the same time. Valleiz, who seems to have used the greatest precautions to avoid all sources of mistake, states, as the results of his examinations, that in infants from two to twenty days old, the minimum of frequency is about 76, and the maximum about 104. We may therefore consider the medium 87 as the average frequency of the pulse at this period of life. It has been generally believed that the frequency of the pulse diminishes as the age of the infant advances. The very reverse, however, seems to be the case, according to the experience of this author; for he found that, at seven months, the pulse is much more frequent than during the first week after birth, and that from that period it progressively diminishes in rapidity to about the sixth year.—*Clinique des Maladies des nouveaux nés, par F. Valleiz,* 1833; *and Edinburgh Monthly Journal of Medical Science.*

[1] Table of Chemical Tests. By James Hamilton, M. D., of Baltimore, prepared for the Maryland Medical and Surgical Journal.

[2] London Medical Gazette, August, 1841, p. 767.